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- Report of the VGE - Part A
- Report of the VGE - Part B
- Draft Report of the First Meeting of the Radiocommunication Advisory Group, Geneva 12-15 April 1994
- Results of the First Conference Preparatory Meeting (CPM) (ITU-R Admin Circular CA/5 dated 9 March 94)
- Information to Radiocommunication Advisory Group Participants (Revision to Biennial schedule pattern after 1995 and to the Radiocommunication Study Group Meetings schedule 1994-1995) (April 1994)

Two Complete Sets are attached.

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94-31

REPORT BY THE VOLUNTARY GROUP OF EXPERTS
TO STUDY ALLOCATION AND IMPROVED USE OF
THE RADIO-FREQUENCY SPECTRUM AND
SIMPLIFICATION OF THE RADIO REGULATIONS

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PART A
GENERAL GUIDELINES AND RECOMMENDATIONS

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List A B C D E

Note by the VGE

NOC	No change
ADD	Addition
(ADD)	Text transferred from elsewhere in the RR
MOD	Substantial modifications
(MOD)	Modifications without substantial changes
SUP	Deletion of the text
SUP*	Text transferred elsewhere

S - numbering scheme is used for identification of Chapters, Articles and newly introduced Sections.

Cross references are made to the existing RR numbers unless the referenced provision have been moved to a new place.

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FINAL REPORT OF THE VOLUNTARY GROUP OF EXPERTS
TO THE COUNCIL AND ADMINISTRATIONS

PART A

1 General Introduction

1.1 At the Plenipotentiary Conference, Nice, 1989, many Members of the Union expressed concern over the need to facilitate the introduction of new and converging technologies, to review the definitions of radiocommunication services in the *Radio Regulations* in order to promote increased use of the radio-frequency spectrum, and to simplify the procedures, terminology and phraseology of the *Radio Regulations*. This led to the adoption of Resolution 8 and that in turn led to the establishment of the *Voluntary Group of Experts* (VGE).

1.2 At the outset of its work, the VGE decided to draw into its initial discussions as many contributions as possible from Members of the Union, operating agencies, other international organizations and the personnel of the headquarters of the Union. The VGE prepared a questionnaire which was widely circulated for comments. On the basis of the comments the questionnaire was finalized and sent to all participants in the work of the Union. Responses came from very many sources. These answers indicated what the respondents wished to see as the outcome of the work of the VGE, and from analyses of all the answers to the questionnaire the VGE was able to construct sets of guidelines for use in its work.

1.3 Having decided to split its work into three main tasks, the VGE agreed on the following structure and appointed its officials as follows:

Chairman	- Mr. Krister Björnsjö (Sweden)
Vice-Chairman	- Mr. Ian Hutchings (New Zealand)
Rapporteur Task 1, Matters relating to the allocation of frequency bands	- Mr. Ian Hutchings (New Zealand)
Rapporteur Task 2, Procedures for the use of frequency assignments	- Mr. Michael P. Davies (United Kingdom)
Rapporteur Task 3, Operational and Administrative Matters	- Mr. Richard Shrum (United States of America)
Co-opted member	- Mr. Abderrazak Berrada (Morocco)
Coordination team	- Mr. Moreshwar Sant (India) Mr. Lars Sonesson (Sweden)
Secretary	- Mr. Alexandre Zoudov (ITU Headquarters) - Ms. Christiane Brunet (Assistant to Mr. Zoudov)
Steering Group	- The officials named above
Editorial Group	- Members from France, United Kingdom and Spain

1.4 The VGE held seven meetings and the Steering Group held ten meetings, with numerous other ad hoc meetings to deal mainly with editorial matters. Participation in the full meetings of the VGE varied but in all they were attended by experts from 35 administrations and eight international organizations and operating agencies (see Annex 1).

1.5 It was understood from the outset that participants in the work of the VGE did so as individual experts and that their contributions did not necessarily represent the views of their administrations or their parent organizations.

1.6 Throughout its work the VGE has had the full support of the Secretary-General. Contributions have been received from members of the former IFRB, the personnel of the (formerly) specialized secretariat of the IFRB and from the (then) CCIR experts. Support received from ITU personnel, not only in material facilities, but also in the contribution of ideas and background work on several highly detailed aspects was of considerable value.

1.7 Interim reports on the progress of the work of the VGE were made to the Council for its annual meetings in 1991, 1992 and 1993; to WARC-92, APP-92 and WRC-93. A report is also being submitted to the annual meeting of the Council in 1994.

1.8 In the interval between submission of this Final Report of the VGE and WRC-95, it is planned that there will be four information meetings, organized in conjunction with the ITU frequency management seminars for the purpose of presenting and explaining the work of the VGE and its outcome.

1.9 The VGE has now completed its work and submits its Final Report and recommendations to the Council and administrations for eventual consideration by the WRC-95 in accordance with Resolution 8 of the Additional Plenipotentiary Conference, Geneva, 1992.

2 General Guidelines for the Work of the VGE

Early in its work the VGE developed a set of general guidelines, and individual sets of more detailed guidelines related to its three tasks, for use in drafting and in the development of this Final Report and recommendations. The general guidelines are reproduced below.

2.1 A statutory requirement arising from the *Constitution* and the *Convention* of the ITU is that the *Administrative Regulations* which include the *Radio Regulations* are subject to the provisions of these instruments. This requirement must be borne in mind in all aspects of the work of the VGE. Against this background the VGE made the following decisions.

2.2 The Simplification of the *Radio Regulations* should maintain the rights of Members and should not increase their obligations. This process should facilitate equitable access to the radio-frequency spectrum and the geostationary-satellite orbit and help administrations to better meet the needs of users in terms of effective and efficient use of these resources. Simplification should specifically:

- a) improve the flexibility in use of the spectrum to provide increased possibilities for the sharing of frequencies and bands; and
- b) facilitate the avoidance and elimination of harmful interference; and
- c) make it easier to apply the *Radio Regulations*.

2.3 The *Radio Regulations*, after they have been simplified, should, in principle, contain only the material appropriate for inclusion in an international treaty, i.e. material relating to the rights and obligations of Members. The application of the *Radio Regulations* will continue to require supporting documentation not having treaty status, such as the Rules of Procedure of the Radio Regulations Board, the ITU Recommendations, etc.

2.4 The transfer of texts dealing with operational procedures and technical details to existing or new ITU-R Recommendations necessitates maintaining their status with the simplified Radio Regulations (see also paragraphs 3.3.7 - 3.3.13 below).

2.5 The process of Simplification of the *Radio Regulations* may also necessitate the transfer of material not requiring treaty status therefrom, possibly into the supporting documentation (see paragraph 2.3 above).

2.6 Some texts relating to administrative tasks should be transferred to the General Secretariat or the appropriate *Bureau* with the consequential deletions from the *Radio Regulations*.

3 Reports and Recommendations

3.1 Task 1 - Matters relating to the allocation of frequency bands

Section 1 Introduction

3.1.1 The ITU *Constitution and Convention*, provide that the Union shall in particular:

- "effect allocation of bands of the radio-frequency spectrum, the allotment of radio frequencies and registration of radio-frequency assignments and any associated orbital positions in the geostationary-satellite orbit in order to avoid harmful interference between radio stations of different countries;" (CS11)
- "coordinate efforts to eliminate harmful interference between radio stations of different countries and to improve the use made of the radio-frequency spectrum and of the geostationary-satellite orbit for radiocommunication services." (CS12)

3.1.2 In its approach to Task 1, and bearing in mind CS11 and CS12, the VGE identified six main elements for study, i.e.:

- a) the general requirement for an allocation table and its purposes;
- b) possible alternative approaches to the partition and sharing of the spectrum;
- c) the need to define radiocommunication services and categories of allocations with their relative status;
- d) the need to maintain a regional approach to the allocation of the frequency bands;
- e) the need to maintain footnotes to the *Table of Frequency Allocations* and the principles to be applied in reviewing the existing footnotes with a view to simplifying the *Table of Frequency Allocations*;
- f) the technical criteria that may be required for the allocation of frequency bands.

3.1.3 These elements were reflected in development of the questionnaire mentioned in the General Introduction to this Final Report, and from the responses the VGE identified some 25 main topics for detailed study. The distillation of those responses shows that many respondents believed the concept of "the merging of two or more services" would provide more opportunities for greater flexibility in use of the spectrum.

Section 2 Framework for allocation of frequencies

3.1.4 The VGE, against this background, considered, with the assistance of reports from the (then) CCIR Task Group 1/1, possible methods of effecting allocation of the radio-frequency spectrum. Various alternatives had some merit, particularly those that associated technical parameters with a particular allocation, but each alternative had some disadvantages of complexity, impracticability or cost. The VGE concluded that it would be impracticable to adopt any fundamentally different allocation system to that used presently in the *Radio Regulations*. In this context, the VGE also considered the present concepts of allotment (RR 18) and assignment (RR 19) and concluded that these were necessary concepts for achieving the purposes of the Union.

3.1.5 The VGE therefore recommends that:

- | | |
|--------------------|---|
| Rec.No. 1/1 | the ITU should maintain an International Table of Frequency Allocations covering the usable radio-frequency spectrum; and |
| Rec.No. 1/2 | the spectrum should continue to be divided into sections called frequency bands, each being "allocated" (RR 17) to one or more services; and |
| Rec.No. 1/3 | the present concepts of "allotment" and "assignment" should be retained. |

3.1.6 The present RR 413 to RR 417 provide for allocations to services on a
PRIMARY
/PERMITTED/ and
Secondary basis.

(An allocation to a service is shown in the *Table of Frequency Allocations* by use of the appropriate type face as given above.)

3.1.7 The VGE considered the need to maintain both the primary and the secondary category. It has been proven practicable to operate many services under a secondary allocation without interfering with the operation of primary services. As such the secondary category provides a flexible means of accommodating more services in a given part of the spectrum than would be possible under primary allocations alone.

3.1.8 The VGE therefore recommends that:

- | | |
|--------------------|---|
| Rec.No. 1/4 | both the PRIMARY and SECONDARY categories of service should be retained. |
|--------------------|---|

3.1.9 The /PERMITTED/ category was introduced to deal with a situation in a band shared by primary services, one of which was to be planned. This category has served its purpose and is no longer necessary. It is not widely used in the *Radio Regulations* and is often misunderstood. The VGE concluded that this category could, in the interest of simplification, readily be deleted. The relevant allocations would then, in accordance with the present RR 419, be shown as PRIMARY in the simplified Regulations.

3.1.10 The VGE therefore recommends that:

Rec.No. 1/5 the "Permitted" category should be deleted from Article 8 of the RR and that any existing allocations with this status should become Primary. (Refer Recommendation No. 1/17 for implementation details.)

3.1.11 The present concepts of "additional allocation", "alternative allocation", and "different category of service" in footnotes to the *Table of Frequency Allocations* provide flexibility to meet particular requirements. However, other footnotes to the *Table of Frequency Allocations* do not clearly specify a basis of allocation or category of service. The intention, and sometimes the effect, of such footnotes may be confusing.

3.1.12 The VGE therefore recommends that:

Rec.No. 1/6 the concepts of additional allocation, alternative allocation and different category of service should be retained and that other formulations of allocation footnotes should be avoided.

3.1.13 The VGE considered the present definitions of services in Article 1 and concluded that, with the exception of the definitions relating to the aeronautical fixed service (refer Recommendation No. 1/18), these should be maintained. However, the VGE noted that circumstances may arise when a definition no longer serves a useful purpose and that in these circumstances such definitions should be deleted.

Section 3 Methods of frequency allocation and use of footnotes

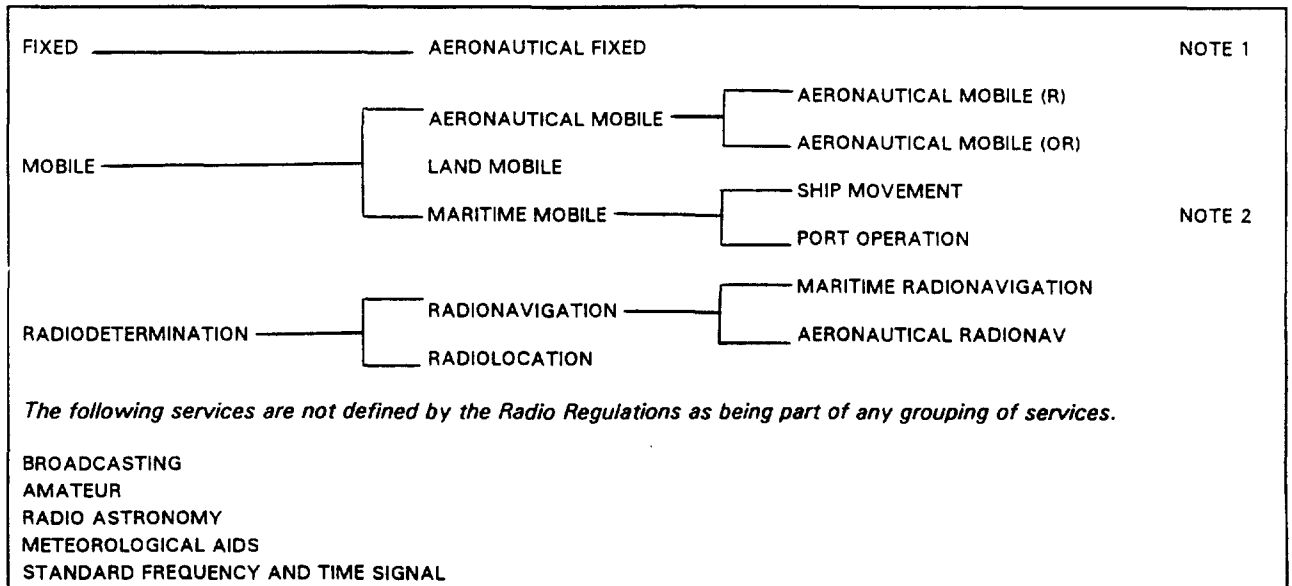
3.1.14 The historical development of the present *Radio Regulations* has led to many defined services and this has led to a large number of individual service allocations. With the development of new technologies and variations in demand, these individual allocations tend to restrict flexibility and unnecessarily limit the utilization of the spectrum. For example, a number of new systems are now capable of providing several fully compatible radiocommunication services from a single technology platform and require allocations suitable for such applications. Furthermore, there are also differences in regional usage and frequency band limits. This situation is complicated by the large number of footnotes which further change parts of the *Table of Frequency Allocations*.

3.1.15 The VGE considered the concept of reducing, by merging, the number of services and in the light of further contributions from members of the VGE and the inputs from the (then) CCIR Task Group 1/1, it was thought that a future objective of having a number of families of services in the *Radio Regulations*, possibly as few as five or seven, might be achievable. It was thought that this might be done progressively and an initial reduction to just under 20 could be practicable. Further intersessional work including a band-by-band examination of the spectrum up to 50 GHz led to the conclusion that the complexity of the present services using the Allocation Table makes an overall application of a reduction of services by merging impracticable.

3.1.16 The VGE recognized that within the present *Radio Regulations* there were a number of services defined which were subsets of other defined services. For example, the land mobile service is a subset of the mobile service. This led to the concept of using the more broadly defined service (e.g., the mobile service in the above example) whenever practicable, rather than the narrowly defined service (e.g., land mobile). This would provide greater flexibility and give increased utilization of the relevant frequency bands. The relationships of the existing service definitions are shown in Figure 1. Further examination of this approach showed that it could only be applied by a band-by-band consideration by future WRCs taking into account the relevant technical, economic and operational factors.

FIGURE 1
RELATIONSHIP BETWEEN RADIO SERVICES IN TERMS OF BROADER AND NARROWER DEFINITIONS

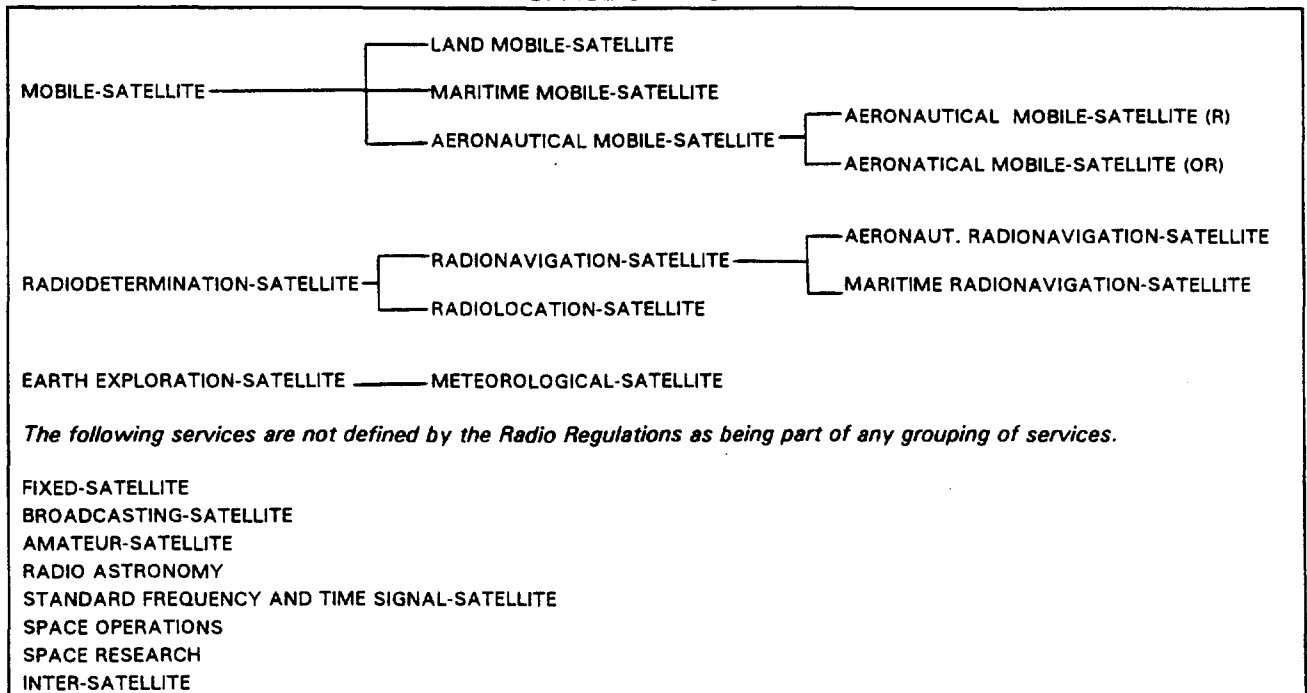
TERRESTRIAL SERVICES



NOTE 1: The deletion of the Aeronautical Fixed Service is recommended by the VGE.

NOTE 2: The Ship Movement and Port Operation Services are not subject to any Table allocations. They are referred to in App.18

SPACE SERVICES



3.1.17 The VGE therefore recommends that:

Rec.No. 1/7 WRCs should, wherever possible, allocate frequency bands to the most broadly defined services to provide the maximum flexibility to administrations in spectrum use, taking into account technical, operational, economic and other relevant factors.

An example of using broad definitions of services is given in Figure 2.

FIGURE 2
EXAMPLE OF THE PRINCIPLES OF ALLOCATIONS TO BROADER DEFINITIONS OF SERVICE

"Initial table"			Modified Table (Examples, by way of illustration, only)			Comments (For information only)
Allocation to Services			Allocation to Services			
Region 1	Region 2	Region 3	Region 1	Region 2	Region 3	
aaaa - bbbb RADIOLOCATION MARITIME RADIONAVIGATION vv www xxx			aaaa - dddd RADIODETERMINATION vvv xxx zzz			Use of Radionavigation service rather than Maritime Radionavigation to lead to Radio-determination allocation, and deletion of F/N www
bbbb - cccc RADIONAVIGATION Radiolocation yyy xxx zzz						Upgrading of Radiolocation to Primary status, and deletion of F/N yyy
cccc - dddd RADIOLOCATION RADIONAVIGATION						Use of broader definition of service to replace narrower definitions.

vvv	In the band aaaa - bbbb MHz, the maritime radionavigation service is limited to shore-based radars.
www	Additional allocation: In A, B, C ... the band aaaa - bbbb MHz is also allocated to the radionavigation service on a primary basis.
xxx	In the band aaaa - cccc MHz, search and rescue transponders (SART) may be used, having due regard to the appropriate ITU-R Recommendation (see also Article 5.31).
yyy	Different category of service: In X, Y and Z, the allocation of the band bbb-ccc to the Radiolocation service is on a primary basis
zzz	The use of the band bbbb - cccc MHz by the aeronautical radionavigation service is limited to airborne weather radars and ground-based radars. Ground-based radars used for meteorological purposes have priority over other radiolocation devices.

3.1.18 The present *Radio Regulations* specify the three "radio Regions" (RR 392 to RR 399) which are used in the *Table of Frequency Allocations*. In many cases, there are significant Regional differences in frequency allocations in the same bands and differences in frequency band limits. The development of common worldwide allocations is desirable to improve and harmonize utilization of the radio-frequency spectrum, facilitating the manufacture, supply and worldwide use of equipment and services at minimum cost. However, it is necessary to allow for Regional differences when justified by different requirements. The VGE recognized that it may not be easy to achieve common allocations and common band limits in all three Regions in some bands and considered that it may be possible to achieve common allocations in two Regions. A movement to common band limits is a part of the implementation of common allocations for all Regions. It should be noted that when future WRCs are considering adopting common frequency allocations and band limits, footnotes can be employed to provide for an "*additional allocation*", "*alternative allocation*" or a "*different category of service*", to avoid disadvantaging administrations whose requirements would not otherwise be met.

3.1.19 The VGE therefore recommends that:

Rec.No. 1/8 WRCs should, wherever possible, allocate frequency bands on a worldwide basis (aligned services, categories of services and frequency band limits), taking into account technical, operational, economic and other relevant factors.

Examples of worldwide allocations are given in:

Figure 3 - Showing alignment of services

Figure 4 - Showing alignment of categories of service

Figure 5 - Showing alignment of frequency band limits

FIGURE 3
EXAMPLE OF THE PRINCIPLE OF ALIGNMENT OF SERVICES

"Initial table"			Modified table (Examples, by way of illustration, only)			Comments (For information only)
Allocation of Services			Allocation of Services			
Region 1	Region 2	Region 3	Region 1	Region 2	Region 3	
cccc - dddd FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	cccc - dddd FIXED MOBILE except aeronautical mobile (R)	cccc - dddd FIXED	cccc - dddd FIXED MOBILE			Mobile added in R3. Mobile also added in R1 and R2 with consequential deletion of other "mobile" services

FIGURE 4
EXAMPLE OF THE PRINCIPLE OF ALIGNED CATEGORIES OF SERVICE

"Initial table"			Modified table (Examples, by way of illustration, only)			Comments (For information only)
Allocation of Services			Allocation of Services			
Region 1	Region 2	Region 3	Region 1	Region 2	Region 3	
aaaa - bbbb FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Earth Exploration-satellite (space-to-Earth) xxx	aaaa - bbbb FIXED FIXED-SATELLITE (Earth-to-space) MOBILE yyy EARTH EXPLORATION- SATELLITE (space-to-Earth)	aaaa - bbbb FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Earth Exploration-Satellite (space-to-Earth) xxx	aaaa - bbbb FIXED FIXED-SATELLITE (Earth-to-space) MOBILE yyy EARTH EXPLORATION-SATELLITE (Space-to-Earth)			Achieving worldwide allocations by alignment of categories of service in Regions. Footnote xxx can be consequently deleted
xxx	Different category of service: In countries A, B, C...and Z, the allocation of the band aaaa - bbbb MHz to the earth exploration-satellite service (space-to-Earth) is on a primary basis No 436A shall apply					
yyy	In Region 2, aircraft stations are not permitted to transmit in the band aaaa - bbbb MHz.					

FIGURE 5
EXAMPLE OF THE PRINCIPLE OF ALIGNMENT OF FREQUENCY BAND LIMITS

"Initial table"			Modified table (Examples, by way of illustration, only)			Comments (For information only)
Allocation to Services			Allocation to Services			
Region 1	Region 2	Region 3	Region 1	Region 2	Region 3	
bbbb - dddd FIXED MOBILE Amateur Radiolocation xxx	bbbb - cccc FIXED MOBILE Amateur Radiolocation xxx		bbbb - cccc FIXED MOBILE Amateur Radiolocation xxx			RADIOLOCATION upgraded to primary in R1 in band cccc - dddd to give aligned band limit and services
dddd - eeee FIXED MOBILE RADIOLOCATION xxx	cccc - eeee FIXED MOBILE RADIOLOCATION xxx		cccc - eeee FIXED MOBILE RADIOLOCATION xxx			
xxx			The band bbbb - dddd (centre frequency ffff MHz) is designated for industrial, scientific and medical (ISM) applications. Radio services operating within this band must accept harmful interference which may be caused by these applications.			

3.1.20 Footnotes to the *Table of Frequency Allocations* are an integral part of the Table and as such are a part of the Treaty adopted by each WRC. The text of any proposed footnotes must therefore be agreed by a competent WRC.

3.1.21 There are many hundreds of footnotes to the *Table of Frequency Allocations* which make it difficult to read and understand the Table. The VGE also noted that these footnotes serve a variety of purposes, e.g. modifying the allocations given in the Table, introducing operational restrictions, dealing with assignment matters, and providing cross-references to other provisions of the RR. The VGE considers that using footnotes for such a wide range of purposes detracts from their prime function which should, as far as possible, be confined to matters of frequency allocation. There are other Articles of the *Radio Regulations* which deal specifically with operational, assignment and other matters and it is not considered appropriate to deal with them in the Table.

3.1.22 The VGE therefore recommends that:

Rec.No. 1/9 footnotes to the Table of Frequency Allocations should, wherever possible, be confined to altering, limiting, or otherwise changing the relevant allocations rather than dealing with the operation of stations, assignment of frequencies or other matters.

3.1.23 The VGE noted that many footnotes appear to have no international implications, or have not resulted in entries in the *Master Register* where such entries might be expected. The VGE therefore recommends that:

Rec.No. 1/10 footnotes to the Table of Frequency Allocations should include only those which have international implications for the use of the radio-frequency spectrum.

3.1.24 The VGE recognizes that there are circumstances in which footnotes cannot be avoided. These include cases where new allocations are being made and there is a requirement to ensure that use of the spectrum in accordance with the existing Table is not disadvantaged. The footnotes also provide a mechanism to allow the introduction of new services under specified conditions which might not otherwise be possible. In other situations the demand for particular services may not be uniform throughout all areas or regions because of different development, economic or technical factors.

3.1.25 The VGE therefore recommends that:

Rec.No. 1/11 in principle, new footnotes to the Table of Frequency Allocations should be adopted only:

- a) to achieve flexibility in the Allocation Table; or
- b) to protect existing usage when the relevant allocations are changed; or
- c) to introduce either transitional or permanent restrictions on a new service to achieve compatibility; or
- d) to provide for the specific requirements of a country or area when it is impracticable to meet such needs otherwise within the Table of Frequency Allocations.

3.1.26 The present *Radio Regulations* include a number of different footnotes which serve a similar purpose although being applicable to different frequency bands. There is a clear risk that this will create unintended differences and inconsistencies in the regulatory provisions. In addition, the Regulations become unnecessarily cluttered.

3.1.27 The VGE therefore recommends that:

Rec.No. 1/12 footnotes serving a common purpose should be written in a common format and should, wherever possible, be grouped into a single footnote with appropriate references to the relevant frequency bands.

Section 4 Implementation of VGE Recommendations

3.1.28 The VGE recognized that the recommendations in Section 3 could only be fully implemented over a period of time. It would be impracticable to expect that the work could be completed by a single WRC. The implementation of these recommendations will be essential for the purpose of increasing utilization of the spectrum, but will require close consideration by administrations in each of the frequency bands concerned when formulating their proposals for WRCs. The procedure for setting agendas of WRCs is considered capable of accommodating the implementation of the VGE recommendations.

3.1.29 The VGE recommends that:

Rec.No. 1/13 WRC agenda items concerning services and frequency bands should be set so that there is adequate scope for consideration of the VGE recommendations 1/7 to 1/12, thereby ensuring continued improvements in the utilization of the spectrum; and

Rec.No. 1/14 in making proposals to future WRCs, administrations should take into account the recommendations of the VGE concerning methods of frequency allocations and use of footnotes.

3.1.30 Once a footnote has been adopted it may remain in the *Radio Regulations* for many years regardless of the need. On occasions a footnote may have been adopted to meet a specific demand, foreseen by a country or group of countries, which did not materialize. An automatic and formalized "housekeeping" mechanism to ensure that such country footnotes are considered for deletion after a period of time would therefore be desirable. This would help administrations and future WRCs to delete footnotes that are no longer needed.

3.1.31 The VGE recommends that:

Rec.No. 1/15 footnotes should be periodically reviewed by the Bureau, in consultation with the administrations concerned, and the results should be communicated to the next competent WRC, with a view to administrations proposing the deletion of their country footnotes, or of their country names from footnotes as appropriate; and

Rec. No. 1/16 future WRC agendas should be such as to allow the deletion of country footnotes or the deletion of country names from footnotes irrespective of the agenda otherwise defined.

Section 5 Recommended action for WRC-95

3.1.32 In accordance with Recommendation No. 1/5, the VGE further recommends:

Rec. No. 1/17 - the definitions relating to the Permitted service in RR 413 to RR 425 should be modified;

- the allocations in the following frequency bands should be modified:
130 - 148.5 kHz (R.1); 255 - 315 kHz (R.1); 285 - 315 kHz (R.2 and R.3);
415 - 435 kHz (R.1); 505 - 526.5 kHz (R.1 and R.3); 1 606.5 - 1 625 kHz (R.1);
1 625 - 1 705 kHz (R.2); 1 635 - 1 800 kHz (R.1); 2 045 - 2 160 kHz (R.1);
138 - 144 MHz (R.2) and 40.5 - 42.5 GHz;
- the following footnotes should be modified or suppressed:
The footnotes concerned are Nos.: 446, 449, 463, 466A, 467, 469, 480, 483,
502, 504, 507, 554, 555, 581, 585, 587, 588, 589, 594, 594A, 621, 622, 631,
632, 687, 694 and 704;
as shown in detail in Part B to this report.

3.1.33 The VGE considered whether it is necessary to retain the definitions relating to the Aeronautical Fixed service in both Article 1 and in the four provisions¹ for this service in the Allocation Table of Article 8. The VGE concludes that the uses of this service can now be provided by other means or in the Fixed service and that the Aeronautical Fixed service should accordingly be deleted.

3.1.34 The VGE recommends that:

Rec. No. 1/18 the definitions of the Aeronautical Fixed service (RR 23) and Aeronautical Fixed Station (RR 64) should be deleted from Article 1 of the Radio Regulations and consequential changes to Article 8 should be considered by WRC-95.

3.1.35 The simplified regulatory procedure, as presented in Chapter SIII contains one single procedure entitled: "*Procedures for Effecting Coordination with or Obtaining Agreement of Other Administrations*", embodying the procedure of the present Article 14. Consequently, the present 59 footnotes referring to an allocation being subject to application of Article 14 procedure will need to be revised.

3.1.36 The VGE in accordance with Recommendation No. 1/12 recommends that for the Article 14 footnotes the following standard text for footnotes and a new Regulation should be used:

Rec.No. 1/19 ***Additional allocation:*** [In [country]], the band [...] is also allocated to the [...] service. No. 436A shall apply.

Rec.No. 1/20. ***Different category of service:*** In [country] the allocation of the band [...] to the [...] service is on a primary basis (see No. [425]). No. 436A shall apply.

Rec. No. 1/21 **ADD 436A** Before bringing into use and notifying the Bureau of any assignment in a service which is subject to this regulation, the procedure of Article S9 shall be applied; such an assignment shall be considered to be in conformity with the Table of Frequency Allocations only after the successful application of Article S9.

¹ Footnotes 459, 539 and frequency bands 21 870 - 21 924 kHz and 23 200 - 23 350 kHz.

3.1.37 The VGE noted that there are two footnotes, Nos. **513** and **635**, which provide for an "*Alternative Allocation*" subject to the Article 14 procedure. Such footnotes may reduce the flexibility available to those administrations concerned, and the VGE was of the opinion that the administrations concerned should be invited to review these footnotes. If the footnotes are retained, and if the procedure cannot be successfully applied, these countries would be left with no allocations in the bands concerned.

3.1.38 Furthermore, the VGE noted the statistical information provided by the *Bureau* on how many times the various provisions referring to the Article 14 procedure had been applied since the *Final Acts* of WARC-79 came into force. The procedure had been applied by the publication of 745 *Special Sections* of the *Weekly Circular*, involving 29 footnotes, submitted by 28 administrations. Of the current 59 footnotes, only 23 (9 terrestrial and 14 space) had been the subject of action under RR 1615, i.e., publication of a *Special Section*.

3.1.39 The VGE therefore recommends that:

Rec.No. 1/22 the Bureau should consult with the administrations concerned with a view to administrations considering deletion of footnotes related to the Article 14 procedure which have never been applied.

3.1.40 In accordance with Recommendation 1/12 the simplification of radio astronomy footnotes is possible through a process of consolidation of like footnotes. In Article 8, there are 48 footnotes referring to radioastronomy, and 38 containing minor variations of the same phrase. The approach adopted by the VGE endeavours to consolidate the radioastronomy footnotes into two basic footnotes common to many bands while maintaining in a modified form a number of other notes that pertain to unique applications in individual bands. The consolidation cuts down the number of footnotes while helping to prevent possible future inconsistency if changes to individual footnotes are to be made by future WRCs.

3.1.41 The VGE therefore recommends that changes be made to the following footnotes as indicated in detail in Part B of this Report.

Rec.No. 1/23 MOD: 533, 744, 904 and consequentially
MOD: 545, 577, 689, 794, 925
SUP: 547, 568, 610, 644, 650, 718, 734, 736, 739, 765, 778, 795,
832, 862, 874, 875, 879, 886, 898, 900, 914, 926 (replaced by
inclusion of MOD 533)
SUP: 919, 924 (replaced by inclusion of MOD 533 and MOD 744)
SUP: 918, 923 (replaced by inclusion of MOD 533 and MOD 904)
NOC: 611, 637, 688, 690, 599A, 647B, 730B, 730C, 733C, 760, 906,
927

(The VGE noted that Nos. 568 and 886 appear to apply to bands or regions where radio astronomy is not allocated. Furthermore, No. 906 urges protection of the *Radio Astronomy service* in three frequency bands² in which all emissions are prohibited. These footnotes should accordingly be reviewed by WRC-95.)

3.1.42 In accordance with Recommendation No. 1/12, the VGE, concluded that 12 of the 13 footnotes relating to *Industrial, Scientific and Medical applications (ISM)* could be treated as two distinct categories, thus reducing the numbers of footnotes.

² (51.4 - 54.25 GHz, 58.2 - 59 GHz and 64 - 65 GHz).

3.1.43 The VGE therefore recommends that changes be made to the following footnotes as detailed in Part B of this Report.

Rec.No. 1/24 MOD: 524 and 534

SUP: 661, 911, 916, 922 (replaced by inclusion of MOD 524)

SUP: 546, 548, 707, 752, 806, 881 (replaced by inclusion of MOD 534)

NOC: 662

3.1.44 In accordance with Recommendation No. 1/12 the VGE considered that those footnotes relating to the prohibition of emissions could be consolidated.

3.1.45 The VGE recommends that changes be made to the following footnotes as detailed in Part B of this report:

Rec.No. 1/25 MOD: 721

SUP: 768, 833, 864, 880, 887, 888, 905, 907, 917, 921 (replaced by inclusion of MOD 721)

NOC: 649A

3.1.46 The VGE requested the (then) *IFRB* to review the *Master Register* in conjunction with those footnotes to the Table relating to specific countries in order to determine which footnotes have resulted in entries in the *Master Register* and the extent of such entries. Information from this study was communicated to administrations by circular letter with a request that administrations review the present need for such "country" footnotes. It is accordingly possible to consider some footnotes for deletion and to consider the removal of country names from certain specific footnotes.

3.1.47 The VGE recommends that:

Rec.No. 1/26 the Radiocommunication Bureau should continue its consultations with administrations and report the outcome to WRC-95;

Rec.No. 1/27 administrations should reflect the results of the Bureau's consultations in their proposals to the WRC-95.

3.2 Task 2 - Matters relating to the Simplification of the Regulatory Procedures

Section 1 Introduction

3.2.1 In Resolution 8 of the Plenipotentiary Conference, Nice, 1989, which led to the establishment of the *Voluntary Group of Experts*, the second of its Terms of Reference was "to review the regulatory provisions and procedures of the *Radio Regulations* with a view to developing recommendations to simplify the *Radio Regulations* in general". The procedural elements of this part of the Terms of Reference became Task 2 of the VGE. In Task 2 therefore, the main concentration was upon Articles 11, 12, 13, 14, 14A, 15, 15A, 16 and 17 of the *Radio Regulations*, two sets of immediately associated appendices, and in consequence certain Resolutions of previous WARC's which contain or refer to regulatory procedures.

3.2.2 The first of these sets comprises Appendices 1, 2, 3, 4 and 5, all of which specify the information to be provided for different applications of these procedures. The second of these sets comprises Appendices 25, 26, 27, 30, 30A and 30B, all of which contain worldwide frequency allotment or assignment plans with associated procedures and technical data used for developing the plan. There are however other plans of a regional character with their associated procedures which do not form part of the *Radio Regulations*, and are not mentioned in Resolution 8 of the PP-89.

3.2.3 Early in its work on Task 2, the VGE decided to consider these regional plans, mainly because their administration formed a significant part of the work of the Bureau. Having considered the associated plan-modification procedures the VGE concluded that because of the different legal status of the relevant treaties they could not be modified by a world radio conference; however, the VGE decided that work should continue in a longer-term attempt to simplify these procedures for possible action by future regional radio conferences.

Section 2 The Approach

3.2.4 At the outset the VGE decided to solicit from ITU Members and various operating agencies, as well as from the ITU headquarters, questions and answers relating to all three Tasks. In respect of Task 2 responses were received from 30 sources which, upon analysis, were found to comprise 53 substantive questions to which over 800 replies were given. A further analysis and synthesis of this body of material led to the adoption of a set of provisional guidelines to be followed in the work of simplifying the procedures. At that stage the VGE had in its hands an instrument expressing the consolidated views of its members which could have been used in one of two ways. Either the present procedures could have been subject to a process of rigorous editing to conform to those guidelines, or, the guidelines could have been utilized for what was termed a "*clean sheet approach*" necessitating the preparation of an entire draft of a new set of procedures. The VGE chose the second approach because it was thought likely to lead to a greater degree of simplification than the first.

3.2.5 This decision was not taken lightly. It was accepted as being a high risk approach, entailing the drafting of new texts to replace the old, which for some people had the advantage of familiarity. In the event however, the VGE took the view that Resolution 8 demanded a strenuous effort to simplify the procedures. They therefore aimed to re-structure the procedures in a simple and logical way; and in so doing to eliminate unnecessary complications, excessive repetitions, too much detail, the over-use of cross-references, and any tendency to over-regulate as indicated by some of the present texts which are never applied or are only rarely applied. Simplification did not, however, mean de-regulation and the VGE had this in mind throughout its work.

3.2.6 In the drafting of new and simplified procedures the VGE sought to follow its own guidelines, especially that which specifies that the texts should contain only material appropriate for inclusion in an international treaty. Considering this aspect, the VGE identified a proportion of the texts of the present procedures, particularly those texts relating to the actions of the *Bureau*, as being more appropriate to the *Rules of Procedure*.

3.2.7 The "*Rules of Procedure*" were until fairly recently contained in an evolving body of documentation prepared and adopted by the *IFRB* for the internal guidance of the *Board* and its *Specialized Secretariat*, to ensure the consistent, objective and methodical processing of all the information that daily flowed into the Board's Secretariat in accordance with the *Radio Regulations*. The *Rules of Procedure* first came into prominence during the WARC-79 when RR 1001.1 and Resolution 35 were adopted, bringing into effect for the first time a mechanism under which an administration could challenge a *Rule of Procedure* or a *Technical Standard* of the *IFRB*, or a decision made as a result of their application.

3.2.8 The *Rules of Procedure* again emerged into the limelight of an ITU conference during the *Additional Plenipotentiary Conference, Geneva, 1992*, and having been recognized as an instrument essential to the process of international radio regulations they were mentioned in the new *Constitution of the Union* (Article 14) and the new *Convention* (Articles 11 and 12). The VGE as part of the process of simplifying the procedures, decided that some of the present detailed provisions would better be embodied in the *Rules of Procedure*³. While their original purpose as described in paragraph 3.2.7 above should remain unchanged, because of their enhanced significance, the *Rules of Procedure* should be subject as a whole to a formalized process of up-dating, involving comments by administrations before the adoption of extensions or other modifications to them by the new *Radio Regulations Board* (the *Board*).

3.2.9 Against this background the VGE was able to embark on the task of drafting new texts which must in the first instance be designed as the replacements for the existing procedures of the Radio Regulations and possibly for one or more of the world plans, and in the second for possible longer-term use in connection with the procedures of the regional plans. In so doing the VGE agreed that the major features of the existing procedures, such as advance publication, prior coordination, plan modification, notification and recording of frequency assignments in a "*Master International Frequency Register*", should be kept in one form or another, and that as far as possible existing wording should also be preserved. The structure of the simplified procedures would however dictate the ordering of the new draft texts.

Section 3 Structure of the Simplified Procedures

3.2.10 VGE members generally wished to have a clear statement of the "*principles*" upon which the radio regulatory procedures are based, because they are often not well understood, and a statement of the "*objectives*" of those procedures. Because most of these have wider relevance to the general body of Radio Regulations they have been introduced into an extended "Preamble". A set of statements on the application of the Simplified Procedures is proposed to form Article S7 of a new Chapter SIII on procedures.

3.2.11 Next, after extensive discussion the VGE decided that this new Chapter must explain clearly the status in terms of the international rights and obligations of administrations in respect of their own and others' frequency assignments which have been recorded in the *Master International Frequency Register* (the *Master Register*). This is done in Article S8. The VGE gave serious consideration to the possible need and potential value of introducing a new concept: "*the right to continue in operation without disturbance*". This might be used for those assignments which have successfully completed an open, transparent coordination procedure, and also for those which have been through that procedure - or through a plan-modification procedure - without success but have received a favourable conclusion from an examination by the *Bureau* with regard to potential interference. The VGE decided however that little would be gained from this action so the concept was abandoned.

³ The Director of the Bureau has been asked to initiate the development of the Rules of Procedure so that a draft of the Rules embodying the material recommended for transfer from the radio Regulations can be available to the WRC-95.

3.2.12 Article S9 presents a standardized procedure for effecting "*coordination*" with or obtaining "*agreement*" of other administrations whose services may be affected by a particular proposed frequency usage. The VGE recognized that the present procedures of Articles 11 and 14, and those of Resolutions 33 and 46, have many common features and could all be integrated into a single article which could also be used in any other cases where the interests of all potentially affected administrations must be safeguarded before assignments are notified. In doing so, wherever these Articles and Resolutions contain unique and important features, effort has been made to incorporate them in the Simplified Procedures.

3.2.13 Article S10 contains a standardized procedure for modifying a frequency allotment or assignment plan which the WRC-95 might decide to apply to one or more of the present world plans, with possible future application to certain of the existing regional plans when they are next revised and for use when any new regional plans are produced by future regional conferences.

3.2.14 Article S11 contains the regulations for the notification of frequency assignments to the *Bureau*, the various examinations of those notices to be made by the *Bureau*, the entries to be made in the *Master Register*, and various associated provisions.

3.2.15 Article S12 contains a simplified version of part of the present Article 17 procedure relating to high frequency broadcasting. Although it follows the line of the "*consultation*" procedure now in operation, the VGE has suggested reducing the present four-season cycle of the procedure to a two-season cycle (as a means of reducing the workloads falling on administrations and on the *Bureau*) with provision for continuing on a four-season basis for those who wish to do so.

3.2.16 Article S13 contains general instructions to the *Bureau* in three sections as follows:

- **Section I** brings together over 30 existing provisions relating to assistance to administrations to be provided by the *Bureau*.
- **Section II** contains general instructions to the *Bureau* for maintenance of the *Master International Frequency Register*.
- **Section III** contains general instructions to the *Bureau* for the maintenance of the *Rules of Procedure*.

3.2.17 Article S14 contains a procedure for the review of a finding or any other decision of the *Bureau*. This is consistent with CS96 and is meant to extend the provisions of CV171, RR 1001.1 and Resolution 35 and it pursues the approach of transparency in the *Bureau's* dealings with administrations.

3.2.18 Section B of this Final Report of the VGE contains a draft of the "*Simplified Procedures*" prepared in accordance with the general and specific guidelines adopted by the VGE and employing the new structure outlined above. This draft has been presented in a form with indicative cross-references to the existing texts of the *Radio Regulations* and other explanatory remarks designed to facilitate comparisons and as an aid to understanding the extent of the simplifications recommended by the VGE. The VGE has also prepared, and included in Part A of this Report, two tables as follows:

- a comparative table showing the recommended disposition of each of the provisions of Articles 11-14A and 17, and the relationships between them and the new Chapter SIII (see Annex 2);
- a comparative table showing the possible disposition of each of the regulatory provisions of Article 16 (in relation to Appendix 25) and Appendices 30 and 30A and the relationship between them and the new Chapter SIII (see Annex 3).

Section 4 Major Aspects of the Process of Simplification

Article S7 - Application of the Procedures

3.2.19 The VGE recognized from the outset that to provide a genuine and worthwhile simplification of the regulatory procedures it would be necessary to adopt a fresh new approach but still employing the principles which have underlain the drafting of the procedures by many different conferences over many years and the objectives they have sought to achieve. At present these are to be found in the new ITU *Constitution and Convention* (Geneva, 1992) and the present *Radio Regulations*. Bringing these principles and objectives together in the Preamble is intended to provide the foundation for the new approach mentioned above. Article S7 has been limited to a set of statements specifying the applicability of the Simplified Procedures.

Article S8 - Status of Frequency Assignments Recorded in the Master International Frequency Register

3.2.20 In Article S8 the VGE has sought to assemble and clarify in the simplest possible terms the end product of compliance with the regulatory procedures, i.e. the international status of frequency assignments made by administrations and recorded in the *Master Register*. In effect assignments obtain international status as a result of their compliance with the various provisions of the *Radio Regulations*. Assignments in conformity with a plan adopted by a Radiocommunication Conference of the Union (or after having successfully applied the procedure for modification of the plan) secure the right to "*international protection from harmful interference*". The VGE decided that this should continue and that it should cover all world plans but that it should not be afforded to other types of frequency assignments other than these covered by the present RR1218 procedure designed essentially for developing countries.

3.2.21 Under the present *Radio Regulations* all assignments which are notified to the *Bureau* and are found to be in conformity with the *Radio Regulations* have the right to "*international recognition*" (denoted by a favourable finding by the *Bureau* and so indicated in the *Master Register*).

3.2.22 Assignments which do not conform in all respects with the *Radio Regulations* (denoted by a reference in the *Master Register* to RR 342) may be entered in the *Master Register* but only for information. In this the VGE proposes no change.

3.2.23 Although the VGE agreed that it should not invent new regulatory provisions, nevertheless, the VGE also agreed that where it identified a flaw or omission in the present procedures it should recommend remedial action and draw the attention of a future WRC specifically to that action. One such case relates to frequency assignments which for one reason or another cannot complete an open and transparent coordination procedure in which all administrations have the right to participate.

3.2.24 In the cases involving, "*coordination*" or "*agreement*", the requesting administration has submitted the details of its proposed assignments for other administrations to see. Usually only a few administrations are concerned. Negotiations then follow as a result of which very specific agreements are reached between the requesting and responding administrations, and these are reported to the *Bureau* and taken into account in making and recording its findings in the *Master Register*. That situation is quite clear and no change is required.